

**Yvette M. Piceno, Ph.D.**

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Email: [YMPiceno@lbl.gov](mailto:YMPiceno@lbl.gov)**Education**

- Univ. South Carolina, Ph.D., Biology, 1999
- Univ. New Hampshire, B.A., Zoology, 1990

**Professional Career**

- Staff Research Associate, Lawrence Berkeley National Laboratory, October 2004-present
- Operations Manager/Project Coordinator, Microbial Insights, Inc., January 2003 – May 2004
- Research Director, Microbial Insights, Inc., May 1999 – December 2002
- Research Assistant, Department of Biological Sciences, University of South Carolina, 1996 – 1998
- NSF Minority Pre-doctoral Fellow, Department of Biological Sciences, University of South Carolina, 1993-1996
- Teaching Assistant, Department of Biological Sciences, University of South Carolina, 1991 -1993, 1998 – 1999

**Awards**

Outstanding Performance Award (LBNL)

PhyloChip Patent support, 2009

Spot Awards (LBNL)

Coordinating Multi-Institutional Study, 2012

ISM Implementation (Safety), 2011

Gulf of Mexico MC252 Oil Leak Rapid Research Response, 2010

Bldg Mgt Emergency Flood Response, 2009

Building Management (volunteer position), 2009

John F. Vernberg Award (USC) – Outstanding Graduating Student from the Department of Biological Sciences, 1999

**Reviewed Research Publications (53) and Book Chapters (4)**

Hu, P., Tom, L., Singh, A., Thomas, B.C., Baker, B.J., Piceno, Y.M., Andersen, G.L., Banfield, J.F. (2016) Genome-resolved metagenomic analysis reveals roles for candidate phyla and other microbial community members in biogeochemical transformations in oil reservoirs. *mBio* Jan/Feb 2016. DOI: 10.1128/mBio.01669-15

Moissl-Eichinger, C., Auerbach, A.K., Probst, A.J., Mahnert, A., Tom, L., Piceno, Y., Andersen, G.L., Venkateswaran, K., Rettberg, P., Barczyk, S., Pukall, R., and Berg, G. (2015) Quo vadis? Microbial profiling revealed strong effects of cleanroom maintenance and routes of contamination in indoor environments. *Scientific Reports* 5: 9156. DOI: 10.1038/srep09156.

Kellogg, C.A., Piceno, Y.M., Tom, L.M., DeSantis, T.Z., Gray, M.A., Andersen, G.L. (2014) Comparing Bacterial Community Composition of Healthy and Dark Spot-Affected *Siderastrea siderea* in Florida and the Caribbean. *PLoS ONE* 9(10):e108767. DOI: 10.1371/journal.pone.0108767.

- Piceno, Y.M., Reid, F.C., Tom, L.M., Conrad, M.E., Bill, M., Hubbard, C.G., Fouke, B.W., Graff, C.J., Han, J., Stringfellow, W.T., Hanlon, J.S., Hu, P., Hazen, T.C., Andersen, G.L. (2014) Temperature and injection water source influence microbial community structure in four Alaskan North Slope hydrocarbon reservoirs. *Frontiers in Microbiology* **5**:409. DOI: 10.3389/fmicb.2014.00409.
- Engelbrektson, A., Hubbard, C.G., Tom, L.M., Boussina, A., Jin, Y.T., Wong, H., Piceno, Y.M., Carlson, H.K., Conrad, M.E., Andersen, G.A., Coates, J.D. (2014) Inhibition of microbial sulfate reduction in a flow-through column system by (per)chlorate treatment. *Frontiers in Microbiology* **5**(315) DOI: 10.3389/fmicb.2014.00315
- Probst, A.J., Lum, P.Y., John, B., Dubinsky, E.A., Piceno, Y.M., Tom, L.M., Andersen, G.L., He, Z., and DeSantis, T.Z. (2014) Microarray of 16S rRNA gene probes for quantifying population differences across microbiome samples. In (He. Z., ed.): *Microarrays: Current Technology, Innovations and Applications*, Chapter 5.
- Closek C.J., Sunagawa, S., DeSalvo, M.K., Piceno, Y.M., DeSantis, T.Z., Brodie, E.L., Weber, M., Voolstra, C.R., Andersen, G.L., Medina, M. (2014) Coral transcriptome and bacterial community profiles reveal distinct Yellow Band Disease states in *Orbicella faveolata*. *Int'l Society Microbial Ecology Journal* **8**:2411-2422, DOI: 10.1038/ismej.2014.85.
- George F. Wells, Cindy H. Wu, Yvette M. Piceno, Brad Eggleston, Eoin L. Brodie, Todd Z. DeSantis, Gary L. Andersen, Terry C. Hazen, Christopher A. Francis, and Craig S. Criddle. (2014) Microbial biogeography across a full-scale wastewater treatment plant transect: evidence for immigration between coupled processes. *Applied Microbiology and Biotechnology* **98**(10):4723-4736.
- Wong J, Piceno Y, DeSantis TZ, Pahl M, Andersen GL, Vaziri ND. (2014) Expansion of urease- and uricase-containing, indole- and p-cresol-forming and contraction of short chain fatty acid-producing intestinal microbiota in ESRD. *American Journal of Nephrology* **39**(3):230-237. DOI: 10.1159/000360010
- Kellogg CA, Piceno YM, Tom LM, DeSantis TZ, Gray MA, et al. (2013) Comparing Bacterial Community Composition between Healthy and White Plague-Like Disease States in *Orbicella annularis* Using PhyloChip™ G3 Microarrays. *PLoS ONE* **8**(11): e79801. DOI:10.1371/journal.pone.0079801
- Dubinsky, E.A., Conrad, M.E., Chakraborty R., Bill, M., Borglin, S.E., Hollibaugh, J.T., Mason, O.U., Piceno, Y.M., Reid, F.C., Stringfellow, W.T., Tom, L.M., Hazen, T.C., Andersen, G.L. (2013) Succession of hydrocarbon-degrading bacteria in the aftermath of the Deepwater Horizon Oil Spill in the Gulf of Mexico. *Environ. Sci. & Technol.* **47**(19):10860-10867, DOI: 10.1021/es401676y
- Zhang, R., Wu, Q., Piceno, Y.M., DeSantis, T.Z., Saunders, F.M., Andersen, G.L., Liu, W-T. (2013) Diversity of bacterioplankton in contrasting Tibetan lakes revealed by high-density microarray and clone library analysis. *FEMS Microbiology Ecology* **86**(2):277-287. DOI:10.1111/1574-6941.12160
- Mello, A., Ding, G-C, Piceno, Y.M., Napoli, C., Tom, L.M., DeSantis, T.Z., Andersen, G.L., Smalla, K., Bonfante, P. (2013) Truffle brûlés have an impact on the diversity of soil bacterial communities. *PLoS ONE* **8**(4):e61945. DOI:10.1371/journal.pone.0061945
- Guo-Chun, D., Piceno, Y.M., Heuer, H., Weinert, N., Dohrmann, A.B., Carrillo, A., Andersen, G.L., Castellanos, T., Tebbe, C.C., Smalla, K. (2013) Changes of soil bacterial diversity as a consequence of agricultural land use in a semi-arid ecosystem. *PLoS ONE* **8**(3):e59497. DOI:10.1371/journal.pone.0059497

- Stanley, L., Rui, Z., Brodie, E., Piceno, Y., Andersen, G., Liu, W-T. (2013) Biogeography of Bacterioplankton in the Tropical Seawaters of Singapore. *FEMS* **84**(2):259-269.  
DOI: 10.1111/1574-6941.12057
- Probst, A.J., Holman, H-Y.N., DeSantis, T.Z., Andersen, G.L., Birarda, G., Bechtel, H.A., Piceno, Y.M., Sonnleitner, M., Venkateswaran, K., Moissl-Eichinger, C. (2013) Tacking the minority: sulfatate-reducing bacteria in an archaea-dominated subsurface biofilm. *ISME J.* **7**(3):635-51  
DOI:10.1038/ismej.2012.133
- Vaziri, N.D., Wong, J., Pahl, M., Piceno, Y.M., Yuan, J., DeSantis, T.Z., Ni, Z., Nguyen, T-H., Andersen, G.L. (2013) Chronic kidney disease alters intestinal microbial flora. *Kidney International* **83**(2):308-315. DOI: 10.1038/ki.2012.345.
- Korves, T.M., Piceno, Y.M., Tom, L.M., DeSantis, T.Z., Jones, B.W., Andersen, G.L., Hwang, G.M. (2013) Bacterial communities in commercial aircraft high-efficiency particulate air (HEPA) filters assessed by PhyloChip analysis. *Indoor Air* **23**(1):50-61. DOI: 10.1111/j.1600-0668.2012.00787.x.
- Hayden, H.L., Mele, P.P.M., Bougoure, D.S., Allan, C.Y., Norng, S., Piceno, Y.M., Brodie, E.L., DeSantis, T.Z., Andersen, G.L., Williams, A.L., Hovenden, M.J. (2012) Changes in the microbial community structure of bacteria, archaea and fungi in response to elevated CO<sub>2</sub> and warming in an Australian native grassland soil. *Environmental Microbiology* **14**(12):3081-96.  
DOI: 10.1111/j.1462-2920.2012.02855.x.
- Beazley, M.J., Martinez, R.J., Raja, S., Powell, J., Piceno, Y.M., Tom, L.M., Andersen, G.L., Hazen, T.C., Van Nostrand, J.D., Zhou, J., Mortazavi, B., Sobecky, P.A. (2012) Microbial community response to the Deepwater Horizon oil spill in a coastal salt marsh. *PLoS ONE* **7**(7): e41305.  
DOI:101371/journal.pone.0041305.
- Reith, F., Brugger, J., Zammitt, C.M., Gregg, A.L., Goldfarb, K.C., Andersen, G.L., DeSantis, T.Z., Piceno, Y.M., Brodie, E.L., Lu, Z., He, Z., Zhou, J., Wakelin, S.A. (2012) Influence of geogenic factors on microbial communities in metallogenic Australian soils. *ISME Journal* **6**:2107-2118.
- Wakelin, S.A., R.R. Anand, F. Reith, A.L. Gregg, R.R.P. Noble, K.C. Goldfarb, G.L. Andersen, T.Z. DeSantis, Y.M. Piceno, and E.L. Brodie (2012), Bacterial communities associated with a mineral weathering profile at a sulphidic mine tailings dump in arid Western Australia. *FEMS Microbiology Ecology* **79**:298–311.
- Handley, K.M., Wrighton, K.C., Piceno, Y.M., Andersen, G.L., DeSantis, T.Z., Williams, K.H., Wilkins, M.J., N'guessan, A.L., Peacock, A., Bargar, J., Long, P.E., Banfield, J.F. (2012) High-density PhyloChip profiling of stimulated aquifer microbial communities reveals a complex response to acetate amendment. *FEMS Microbiology Ecology* **81**:188-204.
- Kellogg, C.A., Piceno, Y.M., Tom, L.M., DeSantis, T.Z., Zawada, D.G., Andersen, G.L. (2012) PhyloChip™ microarray comparison of sampling methods used for coral microbial ecology. *Journal of Microbiological Methods* **88**:103-109.
- De Jesús-Laboy, K.M., Godoy-Vitorino, F., Piceno, Y.M., Tom, L.M., Pantoja-Feliciano, I.G., Rivera-Rivera, M.J., Andersen, G.L., Domínguez-Bello, M.G. (2012) Comparison of the Fecal Microbiota in Feral and Domestic Goats. *Genes* **3**:1-18.
- García-Amado, M.A., Godoy-Vitorino, F., Piceno, Y.M., Tom, L.M., Andersen, G.L., Herrera, E.A., Domínguez-Bello, M.G. (2012) Bacterial Diversity in the Cecum of the World's Largest Living Rodent (*Hydrochoerus hydrochaeris*). *Microbial Ecology* **63**:719-25.
- He, Z., Piceno, Y., Deng, Y., Xu, M., Lu, Z., Desantis, T., Andersen, G., Hobbie, S.E., Reich, P.B., Zhou, J. (2012) The phylogenetic composition and structure of soil microbial communities shifts in response to elevated carbon dioxide. *ISME Journal* **6**:259-272.
- Cooper, M., La Duc, M.T., Probst, A., Vaishampayan, P., Stam, C., Benardini, J.N., Piceno, Y.M., Andersen, G.L., Venkateswaran, K. (2011) Comparison of innovative molecular approaches and

- standard spore assays for assessment of surface cleanliness. *Applied and Environmental Microbiology* **77**:5438-44.
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- Mendes, R., Kruijt, M., de Bruijn, I., Dekkers, E., van der Voort, M., Schneider, J.H., Piceno, Y.M., DeSantis, T.Z., Andersen, G.L., Bakker, P.A., Raaijmakers, J.M. (2011) Deciphering the rhizosphere microbiome for disease-suppressive bacteria. *Science* **332**:1097-1100.
- Weinert, N., Piceno, Y., Ding, G.-C., Meincke, R., Heuer, H., Berg, G., Schloter, M., Andersen, G., Smalla, K. (2011) PhyloChip hybridization uncovered an enormous bacterial diversity in the rhizosphere of different potato cultivars: Many common and few cultivar-dependent taxa. *FEMS Microbiology Ecology* **75**:497-506.
- Kelly, L.C., Cockell, C.S., Piceno, Y.M., Andersen, G.L., Thorsteinsson, T., Marteinsson, V. (2010) Bacterial Diversity of Weathered Terrestrial Icelandic Volcanic Glasses. *Microbial Ecology* **60**:740-752.
- Wrighton, K.C., Virdis, B., Clauwaert, P., Read, S.T., Daly, R.A., Boon, N., Piceno, Y., Andersen, G.L., Coates, J.D., Rabaey, K. (2010) Bacterial community structure corresponds to performance during cathodic nitrate reduction. *ISME Journal* **4**:1443-1455.
- Hazen, T.C., Dubinsky, E.A., DeSantis, T.Z., Andersen, G.L., Piceno, Y.M., Singh, N., Jansson, J.K., Probst, A., Borglin, S.E., Fortney, J.L., Stringfellow, W.T., Bill, M., Conrad, M.E., Tom, L.M., Chavarria, K.L., Alusi, T.R., Lamendella, R., Joyner, D.C., Spier, C., Baelum, J., Auer, M., Zemla, M.L., Chakraborty, R., Sonnenthal, E.L., D'Haeseleer, P., Holman, H.-Y.N., Osman, S., Lu, Z., Van Nostrand, J.D., Deng, Y., Zhou, J., Mason, O.U. (2010) Deep-sea oil plume enriches indigenous oil-degrading bacteria. *Science* **330**:204-208.
- Xia, S., Duan, L., Song, Y., Li, J., Piceno, Y.M., Andersen, G.L., Alvarez-Cohen, L., Moreno-Andrade, I., Huang, C.-L., Hermanowicz, S.W. (2010) Bacterial community structure in geographically distributed biological wastewater treatment reactors. *Environmental Science and Technology* **44**:7391-7396.
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- Duan, L., Xia, S.-Q., Song, Y.-H., Piceno, Y.-M., Hermanowicz, S.-W. (2009) Using high-density universal 16S rRNA microarray in microbial molecular ecology research. *Huanjing Kexue/Environmental Science* **30**:3691-3697.
- La Duc, M.T., Osman, S., Vaishampayan, P., Piceno, Y., Andersen, G., Spry, J.A., Venkateswaran, K. (2009) Comprehensive census of bacteria in clean rooms by using DNA microarray and cloning methods. *Applied and Environmental Microbiology* **75**:6559-6567.
- Sunagawa, S., Desantis, T.Z., Piceno, Y.M., Brodie, E.L., Desalvo, M.K., Voolstra, C.R., Weil, E., Andersen, G.L., Medina, M. (2009) Bacterial diversity and white Plague disease-associated community changes in the caribbean coral montastraea faveolata. *ISME Journal* **3**:512-521.
- Yergeau, E., Schoondermark-Stolk, S.A., Brodie, E.L., D'jean, S., DeSantis, T.Z., Gonçalves, O., Piceno, Y.M., Andersen, G.L., Kowalchuk, G.A. (2009) Environmental microarray analyses of Antarctic soil microbial communities. *ISME Journal* **3**:340-351.
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- Brodie, E.L., DeSantis, T.Z., Moberg Parker, J.P., Zubietta, I.X., Piceno, Y.M., Andersen, G.L. (2007) Urban aerosols harbor diverse and dynamic bacterial populations. *Proceedings of the National Academy of Sciences -USA* **104**:299-304.
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- Andersen, G.L., Piceno, Y.M., DeSantis, T.Z., Brodie, E.L. (2006) What DNA microarrays can tell us about bacterial diversity: A new light on an old question. In: Bailey, M.J., Lilley, A.K., Timms-Wilson, T.M., and Spencer-Phillips, P.T.N. (eds) *Microbial Ecology of Aerial Plant Surfaces*. CAB International, pp. 251-267.
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